NOTE ON THE SEXES OF THE TINGID MELANORHOPALA CLAVATA STAL (HEMIPTERA).

By H. M. Parshley, Smith College, Northampton, Mass.

I have recently had occasion to examine the extensive series of Tingidæ in the collection belonging to my friend Mr. J. R. de la Torre Bueno, and in going over the specimens of *Melanorhopala clavata* Stål I note that this species is peculiar in exhibiting sexual dimorphism to a degree unusual in the family. The males are smaller than the females and decidedly narrower in form, but the most striking difference is in the form of the antennæ, which, in the males, are only slightly clavate, the fourth segment being but little thicker than the cylindrical portion of the third and the latter only a little, though distinctly, enlarged at apex. Renewed study of extensive materials, including a beautiful series of specimens collected at one time and place and kindly sent to me for study by Mr. Wm. J. Gerhard, makes it evident that the form which I described as *M. obscura*[1] is in fact the male of *clavata,* described above. Having very few males at the time of description, I did not suspect that *M. clavata* would exhibit sexual dimorphism in the structure of the antennæ, a phenomenon which, as far as I know, is not to be met with elsewhere in the Tingidæ.

Osborn and Drake have questioned the validity of *M. obscura,*[2] regarding it as possibly identical with *M. lurida* Stål, and Gerhard (*in litt.*), relying on his experience as a collector, has expressed to me his doubts regarding the value of the antennal characters employed in separating these supposed species of *Melanorhopala,* but hitherto the sexual relationship of the forms in question has not been made known. I would bring to the attention of those having appropriate materials the further suggestion that *M. lurida* Stål may be in reality this same male of *M. clavata,* although the dimensions originally given[3] might be taken to indicate otherwise. It is worthy of note that most of the published references to *M. clavata,* including the original description[4] and Osborn and

* On Some Tingidæ from N. E., Psyche, Vol. 23, 1916, p. 167.

† Notes on Tingidæ, Psyche, Vol. 24, 1917, p. 161.

Drake's figures,[5] have to do with the female sex exclusively. In accordance with the data presented above, the following synonymy is proposed:

Melanorhopala clavata Stål, ♂.
M. obscura Parsh.
?*M. lurida* Stål.

* Enum. Hem., 3, 1873, p. 131.
† Enum. Hem., 3, 1873, p. 130.
‡ Op. cit., Pl. 10, Figs. a, b, and c.

CATOCALA TRISTIS AND GRACILIS ON HIGH-BUSH BLUEBERRY.

By Chas. Rummel, Newark, N. J.

On a collecting trip to the Orange Mountains, N. J., May 25, 1918, while beating for caterpillars on the high-bush blueberry (*Vaccinium corymbosum*) a *Catocala* larva dropped into the umbrella. Recognizing it as one of the small species of the genus and suspecting that it might prove to be *tristis,* I continued beating the same kind of shrubs and secured two more larvæ. A strip of woodland south of the trolley line from Roselle to Cranford, N. J., where I had taken two adults of *C. tristis* in a previous season, on June 2, 1918, was found too wet and swampy for collecting. Next, on June 4, visiting the top of the Orange Mountains by way of the Bloomfield car line I secured two more larvæ by again beating on high-bush blueberry, one along the western slope near the top and the other in the wooded valley west of the mountains.

The first lot of three larvæ taken on May 25 pupated on June 4 and on June 28 a fine specimen of *C. tristis* emerged. Of the remaining pupæ one was parasitized, the other died. From the second lot of two larvæ, collected June 4, which pupated on June 10, a perfect specimen of *C. gracilis* hatched on June 28 and another on June 30.

This establishes high-bush blueberry (*Vaccinium corymbosum*) as a food plant for *C. tristis* and *C. gracilis.*